

**ECONOMICS 3U03  
Econometrics I  
Winter 2017**

**P. Contoyannis KTH 416, Ext.26582 contoy@mcmaster.ca**

**Lecture Classes: Mon 2.30-3.20, Wed 2.30-3.20 KTH/B124**

**Seminar 1 Mon 1.30-2.20 (for class location and times see below)**

**Seminar 2 Mon 4.30-5.30 (for class location and times see below)**

**Office Hours: Mon 3.30-4.30. Wed 3.30-4.30 pm or by appointment**

**TA: Shaun Shaikh: shaikhsa@mcmaster.ca- KTH/728: Office hours TBA**

**Course Objectives**

This course will expand on the regression techniques developed in ECON 2B03(Analysis of Economic Data I) and Social Science 2J03. It will help the student to develop an understanding of the fundamental concepts of econometrics and an ability to interpret regression output in the linear regression model. Our focus will be on cross-sectional data. We will not cover time-series topics in this course. These and other advanced topics are covered in ECON 4G03-Econometrics II.

**Prerequisites:** Econ 2B03 or equivalent. Understanding of basic algebra and differential calculus.

**Required Text:** Introduction to Econometrics 5<sup>th</sup> edition (2016) by Christopher Dougherty. Oxford University Press (1 copy will be placed on 2hr reserve in Mills library)

Additional Resources are freely available at:

[www.oxfordtextbooks.co.uk/orc/dougherty5e/](http://www.oxfordtextbooks.co.uk/orc/dougherty5e/)

**Evaluation**

There will be 4 assignments and 1 mid-term in addition to a final examination.

The following weights will be used to determine the final grade for the course.

|  |     |
|--|-----|
| Assignment #1: Random Variables, Sampling and Estimation                 | 10% |
| Assignment #2: Simple regression Analysis and Properties of Coefficients | 10% |
| Assignment #3: Non-Linear Models and Dummy Variables                     | 10% |
| Assignment #4: Specification of Regression Variables                     | 10% |

The deadline for submission of each assignment is given in the schedule below. Failure to meet these deadlines will be penalized by 10 percent per business day (Friday to Monday is one business day). For example, one day late on the first assignment would drop a 2.0 to a 1.8.

Mid-Term : Chapters 1-3

20%

Mid-term exam is held in our regular classroom.

Final exam:

40%

The final exam is scheduled by the registrar's office in a location set by them.

### Course Schedule for lectures, assignments and mid-terms

| Week start | Mon           | Wed                   | Topics to be Covered  |
|------------|---------------|-----------------------|---|
| 2 Jan      |               | 1 <sup>st</sup> class | Introduction  |
| 9 Jan      |               |                       | R1. Statistical review  |
| 16 Jan     |               |                       | R1. Statistical Review and 1.Simple regression                  |
| 23 Jan     | Assignment#1  |                       | 1. Simple Regression  |
| 30 Jan     |               |                       | 2. Properties of Regression Coefficients and Hypothesis Testing |
| 6 Feb      |               |                       | 3. Multiple Regression Analysis I                               |
| 13 Feb     | Assignment #2 |                       | 3. Multiple Regression Analysis II                              |
| 20 Feb     | No class      | No class              |   |
| 27 Feb     | Mid-term      |                       | 4. Nonlinear Models   |
| 6 Mar      |               |                       | 4. Nonlinear Models and 5. Dummy variables                      |
| 13 Mar     | Assignment #3 |                       | 5. Dummy Variables  |
| 20 Mar     |               |                       | 6.Specification of Regression Variables I                       |
| 27 Mar     |               |                       | 6. Specification of Regression variables II                     |
| 2 April    | Assignment #4 | Last class            | Review/Q&A session  |

### Course Schedule for Seminars and Computing Sessions

| Week start | Mon                |          | Topics to be Covered  |
|------------|--------------------|----------|---|
| 16 Jan     | Seminar KTH B124   |          | R1. Statistical Review and 1.Simple regression  |
| 23 Jan     | Computing KTH B121 |          | 1. Simple Regression  |
| 30 Jan     | Seminar KTH B124   |          | 1.Simple Regression and Properties of Regression Coefficients and 2. Hypothesis Testing |
| 6 Feb      | Computing KTH B121 |          | 2. Properties of Regression Coefficients and Hypothesis Testing                         |
| 13 Feb     | Seminar KTH B124   |          | 3. Multiple Regression Analysis   |
| 20 Feb     | No class           | No class |   |
| 27 Feb     | Computing KTH B121 |          | 3. Multiple Regression Analysis   |
| 6 Mar      | Seminar KTH B124   |          | 4. Nonlinear Models   |
| 13 Mar     | Computing KTH B121 |          | 5. Dummy Variables  |

|         |                       |            |  |
|---------|-----------------------|------------|--|
| 20 Mar  | Seminar KTH<br>B124   |            | 5. Dummy Variables   |
| 27 Mar  | Computing<br>KTH B121 |            | 6. Specification of Regression variables                     |
| 2 April | Seminar KTH<br>B124   | Last class | Specification of Regression Variables<br>+Review/Q&A session |

## Course Conduct

1. Please refrain from e-mailing me for class related questions that can be found out from the schedule or Avenue such as "I missed class, what did we do last week, what chapter are we on, when is the assignment due, will topic Y be on the test, did you hand out an assignment in the past two weeks, what grade did I get on assignment Z?" and so forth. Basic rule is first check the outline and Avenue for answers.
2. The teaching assistant (TA) is assigned to conduct all grading. Should you have a problem with your grade please contact them first. Should you be unable to resolve your problem with the TA then feel free to see me during my office hours.
3. Assignments are to be handed in during class at the beginning of class on the day they are due. If you are absent from a class when a graded assignment or test is handed back, you can retrieve these from the TA during their office hours. I do not keep assignments or exams in my office.
4. Any type of photography/video/audio recording during class is strictly forbidden. The only exception will be if you have the express written consent of the instructor.
5. If you fail to show up for an exam or fail to turn in an assignment, you will receive a grade of zero for the missed work. The only exceptions made for missed exams and assignments are for documented illness or other reasons acceptable to the Faculty office.
6. Though strongly recommended, attendance is not recorded. Evidence suggests that those who attend class generally do better than those who do not.

## On Line Elements

Avenue to Learn is McMaster's Learning Management System. I will be using Avenue to Learn to post course announcements, files that you can download, and your grades. You should check Avenue frequently.

Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure.

## E-Mail Policy

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail

communication sent from students to instructors (including TAs), and from students to staff, must originate from the student's own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student's responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

Email Forwarding in MUGSI:

<http://www.mcmaster.ca/uts/support/email/emailforward.html>

**Forwarding will take effect 24-hours after students complete the process at the above link**

### **Academic Ethics**

The Senate Policy Statements, which were distributed at registration (and which are available in the Senate Office in Gilmour Hall), contain the Senate Statement on Academic Ethics, to which your attention is drawn. The statement explains the expectations that McMaster University has of its scholars. It is the responsibility of each student to adhere to the statement. Breaches of academic ethics fall into two categories:

disregard for the norms of scholarly integrity, without necessarily intending to deceive;

academic dishonesty, which is an intentional disregard for the norms of scholarly integrity.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at:

<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>.

Particular cases you should be aware of for this course are:

1. Improper Collaboration
2. Copying or using unauthorized aids in tests and examinations.

### **Course Modification Warning**

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.